320225430 Food Analysis

Module Name	**Food Analysis**
Module Level, if applicable	Advanced
Code if Applicable	320225430
Subtitle, if applicable	-
Courses, if applicable	320225430 Food Analysis
Semester(s) in which the module is taught	3th
Person responsible for the module	Vritta Amroini Wahyudi, S.Si, M.Si
Lecturer	Vritta Amroini Wahyudi, S.Si, M.Si
Language	Indonesian
Relation to curriculum	Compulsory Course for undergraduate program in the Food Technology Department, Faculty of Agriculture and Animal Science
Type of teaching	Lecture, project
Workload	Lecture: 3 SKS X 50 minutes X 16 weeks Project: 3 SKS X 60 minutes X 16 weeks Independent learning: 2 SKS X 60 minutes X 16 week
Credit points	3 SKS X 1.5 = 4,5 ECTS
Requirements according to the examination regulations	1. Registered in this course 2. Minimum 80% attendance in this course
Recommended prerequisites	Analytical Chemistry
Module Objectives (Intended learning outcomes)	On successful completion of this course, students should be able to explain and determine methods that relate to: - occupational safety and health (k3); tools in the laboratory and chemicals (technical, p.a, labels, hazard symbols, storage rules, ingredients) - Titrimetry (titrate, titrant, equivalence point, standard solution) - Separation methods (maceration, distillation, extraction, centrifugation) - proximate analysis (water, ash, lipids, proteins, carbohydrates) - physical properties analysis (texture, viscosity, brightness/ color intensity, pH) - Analysis using spectroscopy (UV-Vis, Infrared, Atomic Absorption) - Analysis using chromatography (TLC, vacuum, column, LC-MS, GC-MS)

Module Content	Food analysis is an advanced course of analytical chemistry and continuity with food analysis courses. This course studies the application of the principles of qualitative and quantitative chemical analysis to foodstuffs. Food analysis uses the reference method of the Association of Official Analytical Chemists (AOAC) and related research publications.
Study and examination requirements and forms of examination	**Cognitive**: Midterm exam, Final exam, Quizzes, Assignments **Affective**: Assessed from the element /variables achievement, namely (a) Contributions (attendance, active, role, initiative, and language), (b) Being on time, (c) Effort.
Media employed	Classical teaching tools with white board and power point presentation
Recommended Literature	**A. Compulsory** 1. Pomeranz, Y. ed., 2013. Food analysis: theory and practice. Springer Science & Business Media. 2. Nielsen, S.S. ed., 2003. Food analysis laboratory manual (p. 557). New York, NY, USA:: Kluwer Academic/Plenum Publishers. 3. Harini, N.; Marianty, R.; Wahyudi, V.A. 2019. Analisa Pangan. Sidoarjo : Zifatama **B. Option** 1. AOAC, 2005. Official Methods of Analysis of the Association of Official Analytical Chemist. Association of Official Analytical Chemist. Washington 2. Cruz, R. M. S., Khmelinskii, I., Viera, M. C. 2014. Methods in Food Analysis. New York : CRC Press.
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